

# METHOD AND APPARATUS FOR USE WITH AN ELECTRON GUN EMPLOYING A THERMIONIC SOURCE OF ELECTRONS

## ABSTRACT

5        A method includes providing an electron gun having a first head with a thermionic electron source and an accelerating electrode, and further includes replacing the first head with a second head having a power rating substantially different than that of the first head, and subsequently operating the electron gun without replacing the accelerating electrode. The electron gun may further include a  
10 platform spaced apart from the accelerating electrode and having an adjustably located locating member that engages a reference member on the head to position the head in three dimensions relative to the accelerating electrode. The platform may be adjustably spaced from the accelerating electrode in order vary the distance between the electron source and the accelerating electrode.

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